

AMENDMENTS TO THE CLAIMS

This listing of Claims will replace all prior versions, and listings, of Claims in the Application:

Listing of Claims:

Claim1 (Currently amended): A digital video display device, comprising:

a navigation unit operative to isolate an input video signal;

a decoder operative to separate said input video signal into a plurality of frames, each frame containing a series of fields;

a detection unit having means for generating a look-up table prior to processing said plurality of frames for display, said look-up table including a processing type associated with a corresponding one of said plurality of frames, said detection unit further having means for providing an indication of said processing type entry corresponding to said each frame from detecting if each said frame matches an entry in a predetermined said look-up table for specifying a first type of processing if there is a match and for specifying a second type of processing if there is not a match; and

a processing unit responsive to said indication of said processing type entry detection unit to provide an appropriate for providing a filtered video frame from a corresponding one of said plurality of frames for display on a computer monitor progressive display device.

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Claim 2 (Previously presented): The device of Claim 1, wherein said input video signal is isolated from a digital versatile disk (DVD) inserted into said navigation unit.

Claim 3 (Canceled).

Claim 4 (Currently amended): The device of Claim 1, wherein ~~said second type of a~~ third processing type entry comprises generating each induces execution of a third processing algorithm in said processing unit upon said indication thereof, said third processing algorithm producing said filtered video frame from the field data of said each frame and a predetermined number of prior video preceding frames and said frame.

Claim 5 (Currently amended): The device of Claim 4, wherein said predetermined number of ~~prior~~ preceding frames is three.

Claim 6 (Currently amended): The device of Claim 1, wherein ~~said first type of a second~~ processing type entry comprises providing induces execution of a second processing algorithm in said processing unit upon said indication thereof, said second processing algorithm producing either a said filtered video frame that is a concatenation of by concatenating said fields of an input data said each frame or a frame containing field segments having values based on adjacent field segments as specified by said look-up table entry.

Claim 7 (Canceled).

Claim 8 (Currently amended): A digital video display system, comprising:

a navigation module operative to isolate an input video signal ~~present in~~ from a digital data stream medium;

a decoder operative to separate said input video into a plurality of video frames;

a detection module having means for generating a look-up table prior to processing said plurality of frames for display, said look-up table including a processing type associated with a corresponding one of said plurality of video frames, said detection module further having means for providing an indication of said processing type entry corresponding to said each video frame from detecting if each said video frame matches an entry in a predetermined said look-up table for specifying a processing type, said detection module further including means for user selection of processing type for said each video frame, said user selection overriding said processing type entry thereof; and

a processing module responsive to said indication of said processing type entry operative to provide for providing a filtered video frame in response to information contained in said predetermined table, wherein said filtered video frame is capable of being displayed on for display on a progressive display device, said filtered video frame processed in accordance with one of said processing type entry and said user selection of processing type.

Claim 9 (Currently amended): The system of Claim 8, wherein said processing module further comprises a first module operative to provide a video frame signal that is a concatenation of the fields of an input video frame, and a second module operative to provide a video frame signal containing field segments having values based on the values of adjacent field segments.

Claim 10 (Currently amended): The system of Claim 8, wherein said detection module is ~~operative to determine~~ further includes means for determining the type of processing to be performed on said video frame based on field data of a predetermined number of prior video frames and said video frame.

Claim 11 (Original): The system of Claim 10, wherein the predetermined number of prior video frames is three.

Claim 12 (Currently amended): A video signal processing method, comprising the steps of:

obtaining current video information from an input video signal;
separating said input video signal into a plurality of video frames;
generating a look-up table having a plurality of processing type entries prior to processing said plurality of video frames, each of said processing type entries respectively storing an indication of a processing algorithm for processing field data of a corresponding one of said plurality of video frames;

~~retrieving detecting if each one of said plurality of processing type entries~~
~~corresponding to one of said plurality of video frame frames prior to the display thereof~~
~~matches an entry in a predetermined table for specifying a processing type; and~~
~~processing generating said one of said video frames in accordance with said~~
~~processing algorithm indicated by said corresponding processing type entry a filtered~~
~~video frame in response to information contained in said predetermined table.~~

Claim 13 (Canceled).

Claim 14 (Currently amended): A method of processing a video signal to remove artifacts, comprising the steps of:

- (a) separating a video image frame into its component fields, where a first one of said component fields is associated with a display time preceding that of a second one of said component fields, each of said component fields including a plurality of pixel lines;
- (b) determining which of said component fields is ~~the~~ said first component field;
- (c) ~~selecting discarding~~ one of said first component field and the said second
component field of said video image frame for processing to a filtered video frame; and
- (d) setting a first pixel line of said filtered video frame to a first pixel line of said component field selected in step (c);
- (e) setting said second pixel line of said filtered video frame to said first pixel line of said component field selected in step (c) if said selected component field is said second component field;

(f) generating a pixel line having pixel values equal to an average of corresponding pixels in each adjacent pair of pixel lines of said selected component field;
and

(g) inserting said generated pixel line between said corresponding adjacent pair of pixel lines of said filtered video frame except said first pixel line and said second pixel line if said selected component field is said second component field

~~(d) generating a combined video image frame signal based only on said first component field;~~

~~wherein each component field comprises a plurality of pixel lines.~~

Claim 15 (Canceled).

Claim 16 (Currently amended): The device of Claim 1, wherein said detection unit is ~~operative to determine the type of~~ further includes means for user selection of processing type for said each frame, said user selection overriding said processing type entry thereof ~~to be performed on a predetermined video frame signal based on a selection by a user of said digital video display device.~~

Claim 17 (New): The device of Claim 1, wherein a first processing type entry induces execution of a first processing algorithm in said processing unit upon said indication thereof, said first processing algorithm producing said filtered video frame from a sum of scaled field data of adjacent field segments of said each frame.

Claim 18 (New): The device of Claim 4, wherein said third processing type entry is a null entry into said look-up table, said indication thereof corresponding to no predetermined processing type associated with said corresponding frame.

Claim 19 (New): The device of Claim 1, wherein said detection unit further includes means for determining the type of processing to be performed on said each frame based on field data said each frame and a predetermined number of preceding frames.

Claim 20 (New): The video signal processing method of Claim 12, whereby said video frame processing step includes the step of concatenating fields corresponding to each frame when said processing type entry indicates a first processing algorithm.

Claim 21 (New): The video signal processing method of Claim 12, whereby said video frame processing step includes the steps of:

multiplying pixel values of each field line in each of said plurality of video frames by a corresponding scalar value; and

summing adjacent scaled field lines,

when said processing type entry indicates a second processing algorithm.

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Claim 22 (New): The video signal processing method of Claim 12 further including the step of overriding said processing type entry in said look-up table for any of said plurality of video frames with a user selection of processing type.